



## Worthington Hooker School

180 Canner Street

New Haven, CT 06511

District Math Supervisor: Kenneth Mathews

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Worthington Hooker, a small K–8 school separated in two buildings, has the most diverse school population in urban New Haven. The changes in the mathematics program at Worthington Hooker over the past few years reflect the New Haven school district's commitment to focus in depth on fewer topics. The district mathematics supervisor, Ken Mathews, says that Worthington Hooker stands out among schools in the district in terms of the quality

of the teachers and their high expectations for student success. The school follows the Comer model of culturally responsive schools with a strong commitment to equity and belief that urban students can excel in STEM subjects and is also one of Connecticut's HOTS schools (higher-order thinking schools).

- ◆ Elementary/Middle (K–8)
- ◆ 45% White
- ◆ 25% Black
- ◆ 22% Asian
- ◆ 7% Hispanic
- ◆ 37% Free or Reduced-Price Lunch
- ◆ 11% English Language Learners
- ◆ 6% Special Education

District mathematics supervisor Ken Mathews explains the goal of the elementary and middle school mathematics program: “From a district level, we obviously want to prepare all students for algebra. But in a more global sense, we want to get our students excited, motivated and prepared for STEM careers — science, technology, engineering, and mathematics — and to help them chart a path for themselves to navigate through high school and college mathematics, so that they can have access to STEM careers and the quality of life that is afforded by them.”

The district uses benchmarks to guide instruction. Ken Mathews again: “Well, if kids are going to be successful at fractions, they need to know their addition facts by the end of grade 1, their subtraction facts by the end of grade 2, and multiplication by the end of grade 3. They need to be able to do long division by the end of grade 4 without a calculator. And then, they need to also have conceptual understanding of those areas by being able to take those skills and facts and apply them to problem-solving situations. If we can achieve that, then the fractions should come very naturally in grades 5, 6, and 7. And then students will be algebra-ready by grade 8. So, I think it's a pretty simple plan, a model. Implementing it for 22,000 kids in an urban center isn't always that easy, but I think we do have the blueprint down.”

Worthington Hooker uses a core mathematics program at each level and teachers have access to many supplementary materials, including significant tasks which are rich problems developed around major concepts and topics. There is one hour of protected time for math instruction each day at the K–6 level and 50 minutes per day at grades 7–8.

District-developed common benchmark assessments are administered four to six times per year depending on grade level. In addition, formal and informal formative assessments are used frequently to determine proficiency and progress. Worthington Hooker has weekly data team meetings to examine student work and the results of formative assessments and share ideas for improvement. All data is online, facilitating access for data teams. Teachers tailor interventions needed for individual students, often using online practice materials.

Teachers have received a great deal of professional development in problem solving/pre-algebra topics over the past two years, approximately 45 hours per year. In the spirit of building a culture of math literacy in the school, all teachers, including physical education, music, and art specialist teachers, have received professional development in ways to support math practice.